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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/748,102	12/22/2000	Sidney Bell	98RE017A	5136

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Rockwell Automation  
1201 South Second Street, Dept. 704P  
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EXAMINER

TAMAI, KARL I

ART UNIT PAPER NUMBER

2834

DATE MAILED: 09/04/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/748,102

Applicant(s)

BELL, SIDNEY

Examiner

Tamai IE Karl

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 19 July 2002.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-5,7-11 and 13-22 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☐ Claim(s) 1-5,7-11 and 13-22 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.  
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).  
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_ 6) ☐ Other: \_\_\_\_\_

**DETAILED ACTION**

***Claim Rejections - 35 USC ' 103***

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1, 2, 7-9, 11, 13, and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Cope et al.(Cope)(US 4,160,926), Erdman et al.(IEEE Conference) and Andrus(US 2,573,126). Cope teaches every aspect of the invention except the electrostatic shield of resin and conductive paint. Erdman teaches the entire stator length being treated with varnish and then painted with a copper(non-magnetic) paint. It would have been obvious to a person of ordinary skill in the art at the time of the invention to construct the machine of Cope with a paint applied to the cured resin to construct a Faraday shield, and with the insulative protective top coat of Andrus to keep moisture from the coils and allow the motor to operate in oil or water.

3. Claims 3-5 and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Cope, Erdman (IEEE), and Andrus, in further view of Erdman et al.(US 5,661,353)(353). Cope, Erdman, and Andrus teach every aspect of the invention except the ground wall (paint) being grounded through the stator. Erdman teaches the electrostatic shield can be grounded through the stator. It would have been obvious to

a person skilled in the art at the time of the invention to construct the machine Cope, Erdmann, and Andrus with shield grounded through the stator to provide simultaneous grounding of the core and the shield.

4. Claim 15 is rejected under 35 U.S.C. 103(a) as being unpatentable over Cope et al.(Cope)(US 4,160,926), Erdman et al.(IEEE Conference), and Andrus. Cope, Erdman (IEEE) and Andrus teach every aspect of the invention except, a predetermined thickness of the insulative layer is at least 0.012 inches. It would have been obvious to a person skilled in the art at the time of the invention to construct the motor of Cope, Erdman (IEEE), and Andrus with the predetermined thickness of the insulative layer is at least 0.012 inches to provide sufficient insulation between the winding and the ground shield and because It has been held that where the general conditions of a claim are disclosed in the prior art, discovering the optimum or workable ranges involves only routine skill in the art. (see *In re Aller*, 105 USPQ 233).

5. Claims 16 and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Erdman et al. (IEEE Conference) and Andrus(US 2,573,126). Erdman teaches a motor with a stator and rotor. The stator core and windings are covered with a varnish and then and covered with a paint (inherently bonded to the stator). Erdman does not teach the conductive paint covered with an insulative layer. Andrus teaches the stator covered with an insulative layer 8 (plastic) to seal the stator against moisture and allow the motor to operate in oil or water. It would have been obvious to a person of ordinary

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skill in the art at the time of the invention to construct the motor of Erdman with an inner insulative layer, as in Andrus to seal the stator against moisture and allow the motor to operate in oil or water.

6. Claims 17, 18, and 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Erdman et al. (IEEE Conference) and Andrus(US 2,573,126), in further view of Cope et al. (Cope)(US 4,160,926). Erdman and Andrus teach every aspect of the invention except the insulative layer being a glass filled thermoset resin, which is cured on the stator core. Cope teaches a glass filled thermoset resin which is cured after being applied to the stator and core. It would have been obvious to a person of ordinary skill in the art at the time of the invention to construct the machine of Erdman and Andrus with the cured resin layer of Cope et al. to insulate the coils and provide a void free resin impregnation of the coils which is less time consuming and less expensive during manufacture.

In regards to claim 17, regarding the application of the insulative layer being applied in an uncured state is a method of making limitation which has not been given patentable weight.

7. Claim 19 is rejected under 35 U.S.C. 103(a) as being unpatentable over Erdman et al. (IEEE Conference), Andrus(US 2,573,126), and Cope et al. (Cope)(US 4,160,926). Erdman, Andrus, and Cope teach every aspect of the invention except, a predetermined thickness of the insulative layer is at least 0.012 inches. It would have

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been obvious to a person skilled in the art at the time of the invention to construct the motor of Erdman(IEEE), Cope, and Andrus with the predetermined thickness of the insulative layer is at least 0.012 inches to provide sufficient insulation between the winding and the ground shield and because it has been held that where the general conditions of a claim are disclosed in the prior art, discovering the optimum or workable ranges involves only routine skill in the art. (see *In re Aller*, 105 USPQ 233).

8. Claim 21 is rejected under 35 U.S.C. 103(a) as being unpatentable over Erdman (IEEE) and Andrus, in further view of Erdman et al.(US 5,661,353)('353). Erdman and Andrus teach every aspect of the invention except the ground wall (paint) being grounded through the stator. Erdman teaches the electrostatic shield can be grounded through the stator. It would have been obvious to a person skilled in the art at the time of the invention to construct the machine Erdman and Andrus with shield grounded through the stator to provide simultaneous grounding of the core and the shield.

### ***Response to Arguments***

9. Applicant's arguments with respect to claims 1-5, 7-11, 13-22 have been considered but are moot in view of the new grounds of rejection. The Applicant's argument that Cope and Erdman do not teach a resin layer on the inner surface of the conductive layer is not persuasive. The Applicant is not considering the combined teachings of the cited references (see *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986) holding that

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one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references). Cope teaches the cured, thermosetting resin applied to the coils to reduce voids. Erdman teaches that a varnish (insulative layer) is applied to the stator and the coils (including the end windings) before the conductive paint is applied. Therefore a person skilled in the art would combine Cope and Erdman to provide a void free resin impregnated stator with improved efficiency and productivity provided by the Faraday shield of Erdman. In order for the motor to be utilized in an oil or water environment, Andrus teaches the a plastic shield (layer 8) is formed on the inner surface of the stator. So a person of ordinary skill in the art would use the motor of Cope and Erdman with the shield of Andrus to protect the stator in a liquid environment. The Applicant's argument that there is no motivation to combine the references is not persuasive. Andrus clearly teaches in col. 1, line 3-6 that motor is designed to be operable in oil or water. The Applicant's argument that there is no motivation in Andrus for an electrostatic shield is not persuasive because Erdman teaches the shield provides efficient and long lasting motor. The examiner cites Makous (2715687) and Nakamura et al. (US 5490319) as showing the general knowledge in the motor field that induction motors such as Erdman are typically used in submersible motors, such that the plastic shield of Andrus is used to protecting the windings. The rejection is proper and maintained.

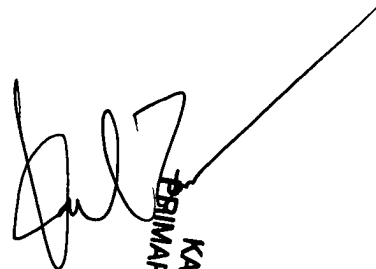
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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Karl I.E. Tamai whose telephone number is (703) 305-7066.

The examiner can be normally contacted on Monday through Friday from 8:00 am to 4:00 pm. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mr. Nestor Ramirez, can be reached at (703)308-1371. The facsimile number for the Group is (703)305-3432.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (703) 308-0956.

Karl I Tamai  
PRIMARY PATENT EXAMINER  
September 2, 2002



KARL TAMAI  
PRIMARY EXAMINER